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CONTROLLED HAZARDOUS SUBSTANCES FACILITY PERMIT

Permit Number: A-302

Effective Date: TBD

Expiration Date: TBD

Pursuant to the provisions of Environment Article, Section 7-232, <u>Annotated Code of Maryland</u> and regulations promulgated thereunder, the Maryland Department of the Environment, Waste Management Administration, hereinafter referred to as "WAS" hereby authorizes

Safety-Kleen Systems, Inc.

5400 Legacy Drive, Cluster II, Building 3 · Plano, TX 75024 1301 Gervais Street, Suite 300 Columbia, SC 29201

hereinafter referred to as "Safety-Kleen", to provide post-closure care for a closed controlled hazardous substances facility located at

12164 Tech Road, Silver Spring, Maryland 20904 EPA ID No. MDD 000 737 395

(latitude 39° 03' 19", longitude 76° 58' 03") in accordance with the following standard, general and special conditions including the attachments made part hereof, and the provisions of COMAR 26.13. The facility contact person and mailing address is:

Mr. Gerhard L. Risse
4810 South Old Peachtree Road
Norcross, GA 30071
Telephone: (770) 418-1860

This permit is based on the assumption that the information submitted in the permit application attached to Safety-Kleen's letter dated September 30—, 2005 March 24, 1997, as modified by subsequent amendments dated April 7, 1997, November 5, 1997, February 6, 1998, July 13, 1999 and July 26, 1999 (hereafter referred to as the application) is accurate, and that the post-closure care of the closed facility will be designed and implemented as specified in the application. Any inaccuracies found in this

information may be grounds for the modification or termination of this permit (COMAR 26.13.07.11 and .12) and potential enforcement action. Safety-Kleen shall inform the WAS of any deviation from or changes in the information in the application which would affect Safety-Kleen's ability to comply with the applicable regulations or permit conditions.

PART I

STANDARD CONDITIONS

I.A. EFFECT OF PERMIT

Safety-Kleen is allowed to render post-closure care of the closed facility in accordance with the conditions of this permit. Any post-closure action not authorized in this permit is prohibited. Issuance of this permit does not convey property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of State or local laws or regulations. Compliance with the terms of this permit does not constitute a defense to any action brought under Section 7003 of RCRA (42 USC §6973), Section 106(a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 USC §9606(a), commonly known as CERCLA), or any other law governing protection of public health or the environment.

I.B. PERMIT ACTIONS

This permit may be modified, revoked and reissued, or terminated for cause as specified in COMAR 26.13.07.11 & 12. The filing of a request for a permit modification, revocation and reissuance, or the notification of planned changes or anticipated noncompliance on the part of Safety-Kleen does not stay the applicability or enforceability of any permit conditions.

I.C. SEVERABILITY

The provisions of this permit are severable; and if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby.

I.D. DEFINITIONS

For the purpose of this permit, terms used herein shall have the same meaning as those in COMAR 26.13 unless this permit specifically states otherwise; where terms are not otherwise

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defined, the meaning associated with such terms shall be as defined by a standard dictionary reference or the generally accepted scientific or industrial meaning of the term.

I.E. SIGNATORY REQUIREMENTS

All reports, and other information requested by the WAS shall be signed and certified as required by COMAR 26.13.07.03 B.

I.F. DOCUMENTS TO BE MAINTAINED AND MADE AVILABLE UPON REQUEST

Safety-Kleen shall make necessary arrangements to maintain the following documents, and amendments, revisions, and modifications to these documents at the Safety-Kleen <u>Manassas</u>

Service Center located at <u>11520 Balls Ford Road</u>, <u>Manassas</u>, <u>Virginia 20109</u> until the post-closure care is completed and certified by an independent registered professional engineer:

- I.F.1. Waste analysis plan required by COMAR 26.13.05.02 D and this permit. The plan shall include sampling and analysis procedures required by COMAR 26.13.05.06-2 G.
- I.F.2. Personnel training documents and records required by COMAR 26.13.05.02 G (4) & (5) and this permit.
- I.F.3. Contingency Plan required by COMAR 26.13.05.04 and this permit.
- I.F.4. Post-Closure Plan required by COMAR 26.13.05.07 and this permit.
- I.F.5. Annually adjusted cost estimate for facility Post-closure Care required by COMAR 26.13.05.08 and this permit.
- I.F.6. Operating record required by COMAR 26.13.05.05 D and this permit.
- I.F.7. Inspection schedules and logs required by COMAR 26.13.05.02 F (2) & (4) and this permit.
- I.F.8. A copy of the current version of COMAR 26.13.
- I.F.9. A copy of this permit and its attachments.
- I.F.10. All other documents required by subsequent parts of this permit.

I.G. DUTIES AND REQUIREMENTS

I.G.1. <u>Duty to Comply.</u> Safety-Kleen shall comply with all conditions of this permit, except to the extent and for the duration such noncompliance is authorized by an emergency permit. Any other permit noncompliance constitutes a violation of COMAR and is grounds for enforcement action, permit termination, revocation and re-issuance, modifications, or denial of a permit renewal application.

- I.G.2. <u>Duty to Reapply.</u> If Safety-Kleen is required to continue the activities regulated by this permit after the expiration date of the permit, Safety-Kleen shall submit a complete application for a new permit at least 180 days before this permit expires, in accordance with COMAR 26.13.07.04 B.
- I.G.3. <u>Permit Expiration</u>. This permit and all conditions therein will remain in effect beyond the permit's expiration date if Safety-Kleen has submitted a timely, complete application and through no fault of Safety-Kleen, the WAS has not issued a new permit (State Government Article §10-226(b)).
- I.G.4. Need to Halt or Reduce Activity Not a Defense. It shall not be a defense for Safety-Kleen in an enforcement action to argue that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- I.G.5. <u>Duty to Mitigate.</u> Safety-Kleen shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this permit.
- I.G.6. Proper Operation and Maintenance. Safety-Kleen shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by Safety-Kleen to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems, when necessary, to maintain compliance with the conditions of this permit.
- I.G.7. <u>Duty to Provide Information.</u> Safety-Kleen shall furnish to the WAS, within a reasonable time, any relevant information which the Secretary may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. Safety-Kleen shall also furnish to the WAS, upon request, copies of records required to be kept by this permit.
- I.G.8. <u>Inspection and Entry.</u> Safety-Kleen shall allow the WAS, or an authorized representative, upon the presentation of credentials and other documents, as may be required by law, to:
 - I.G.8.a. enter at reasonable times upon Safety-Kleen's premises where a regulated facility is located or a regulated activity is conducted, or where records shall be kept

under the conditions of this permit;

- I.G.8.b. have access to and copy, at reasonable times, any records that shall be kept under the conditions of this permit;
- I.G.8.c. inspect at reasonable times any facility, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
- I.G.8.d. sample or monitor substances or parameters at any location, at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by the Environment Article or COMAR.

I.G.9. Monitoring and Records.

- I.G.9.a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. The method used to obtain a representative sample of the waste to be analyzed shall be the appropriate method from COMAR 26.13.02.20 or an equivalent method approved by the WAS. Laboratory methods shall be those specified in Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (SW-846, 3rd ed.) and its updates as incorporated by reference in COMAR 26.13.01.05 A (4), Standard Methods of Waste Water Analysis (19th ed. 1995) or an equivalent method as specified in the attached Sampling and Analysis Plan (Attachment 2).
- I.G.9.b. Safety-Kleen shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports and records required by this permit, and records of all data used to complete the application for this permit for a period of at least three (3) years from the date of the sample, measurement, report, and record. These periods may be extended by request of the WAS at any time and are automatically extended during the course of any unresolved enforcement action regarding this facility.

I.G.9.c. Records of monitoring information shall specify:

- 1. the dates, exact place, and times of sampling or measurements;
- 2. the individuals who performed the sampling or measurements;

- 3. the dates analyses were performed;
- 4. the individuals who performed the analyses;
- 5. the analytical techniques or methods used; and
- 6. the results of such analyses.
- I.G.10. <u>Reporting Planned Changes</u>. Safety-Kleen shall give notice to the WAS as soon as possible of any planned physical alterations or additions to the permitted facility or any planned alterations to the permitted activity. This notice shall include a description of all incidents of noncompliance reasonably expected to result from the proposed changes.
- I.G.11. <u>Transfer of Permits.</u> This permit may be transferred to a new owner or operator only if it is modified or revoked and reissued pursuant to COMAR 26.13.07.10. Before transferring ownership or operation of the facility during its operating life, Safety-Kleen shall notify the new owner or operator in writing of the requirements of COMAR 26.13 and provide the new owner with a copy of this permit.

I.G.12. Notification.

- I.G.12.a. Safety-Kleen shall report to the WAS any noncompliance, which may endanger health or the environment, orally within 24 hours and in writing within 5 days from the time Safety-Kleen becomes aware of the circumstances (COMAR 26.13.07.04 L(6)).
- I.G.12.b. Oral and written reports required by Permit Condition I.G.12.a above shall include the following:
 - 1) Information concerning release of any hazardous waste that may endanger a public drinking water supply source;
 - 2) Any information of a release or discharge of hazardous waste, or of a fire or explosion at the facility which could threaten human health or the environment outside the facility, with the description of the occurrence and its cause including:
 - i) The name, address, and telephone number of the owner or operator;

- ii) The name, address, and telephone number of facility;
- iii) The date, time, and type of incident (for example, a release or fire);
- iv) The names and quantities of material(s) involved;
- v) The extent of injuries, if any;
- vi) The assessment of actual or potential hazard to the environment and human health outside the facility, where this is applicable; and
- vii) The estimated quantity and disposition of recovered material that resulted from the incident. (COMAR 26.13.07.15 D)
- I.G.12.c. In addition to the information required by Permit Condition I.G.12.b above, Safety-Kleen shall include in the written report of noncompliance:
 - 1) A description of the noncompliance and its cause;
 - 2) The period of noncompliance, including exact dates and times, and if the noncompliance has been corrected or the anticipated time it is expected to continue; and
 - 3) Steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. (COMAR 26.13.07.04 L(6)).
- I.G.12.d. Safety-Kleen may submit the written report required by Permit Condition I.G.12.a within 15 days of becoming aware of the circumstances requiring notification, if the WAS approves the later deadline. (COMAR 26.13.07.15 D(2)(g))
- I.G.12.e. If Safety-Kleen determines that the facility has had a release, fire or explosion which could threaten human health, or the environment, outside the facility, or, if the release exceeds the Reportable Quantities set forth in COMAR 26.13.05.04G(4), Safety-Kleen shall immediately notify:
 - 1) the local designated on-scene coordinator, if any;

- 2) the National Response Center at (800) 424-8802;
- 3) the WAS Hazardous Waste Enforcement Division at (410) 631-3400, during working hours;
- 4) the MDE Emergency Response Division at (410) 333-2950 during working hours, or (410) 974-3551 during non-working hours; and
- 5) Montgomery County Emergency Management by dialing 911 or calling (301) 217-2770.
- 6) other appropriate local authorities, if the facility's Emergency

 Coordinator determines that evacuation of local areas may be advisable.

 (COMAR 26.13.05.04 G(4))
- I.G.12.f. In the oral notification report required by Permit Condition I.G.12.e above, Safety-Kleen shall include:
 - 1) Name and telephone number of reporter;
 - 2) Name and address of the facility;
 - 3) Time and type of incident (release, fire or explosion);
 - 4) Name and quantity of materials involved, to the extent known;
 - 5) The extent of injuries, if any; and
 - 6) The possible hazards to human health, or the environment, outside the facility. (COMAR 26.13.05.04 G(4)(b)
- I.G.12.g. If an incident occurs which requires Safety-Kleen to implement the Emergency Procedures/ Contingency Plan of Permit Attachment 4, Safety-Kleen shall make a written submission to the WAS within 15 days of the incident (COMAR 26.13.05.04 G(10)). This submission shall include the information items (i) through (vii) listed under Permit Condition I.G.12.b (2) above.
- I.G.13. Other Noncompliance. Safety-Kleen shall report other instances of noncompliance with this permit, not otherwise required to be reported above, at the time monitoring reports are submitted. The reports shall contain the information listed in Permit Condition

I.G.12.

I.G.14. Other Information. Whenever Safety-Kleen becomes aware that it failed to submit any relevant facts in the permit application or submitted incorrect information in a permit application or in any report to the WAS, Safety-Kleen shall promptly submit such facts or information to the WAS and state the reason for the omission or inaccuracy.

I.H. PERMIT FEE

Payment of the permit fee for this facility is a prerequisite to issuing this permit. Failure to pay the permit fee in a timely manner constitutes grounds for permit revocation. As specified in COMAR 26.13.07.21 the permit fee is based on the size of the facility, nature and quantity of CHS, and the anticipated costs of regulatory activities such as permit preparation, inspections, monitoring, and program development. During the existence of this permit, the permit fee is \$ 18,665.75 per year, in addition to the cost of public notices. An application fee, submitted with the permit application, will be credited towards the first year's annual permit fee.

I.I. COMPLIANCE SCHEDULES

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than fourteen (14) days following each schedule date.

PART II GENERAL FACILITY CONDITIONS

II.A. DESIGN AND OPERATION OF FACILITY

Safety-Kleen shall implement post-closure care of the closed facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment.

II.B. GENERAL WASTE AND SAMPLE ANALYSIS

Safety-Kleen shall follow the procedures described in the attached Sampling and Analysis Plan, Attachment 2. Safety-Kleen shall verify its sample analysis as part of its quality assurance program, in accordance with current EPA practices (Test Methods for Evaluating Solid Waste:

<u>Physical/Chemical Methods</u> SW-846, 3rd ed.) or equivalent methods approved by the WAS; and at a minimum, maintain proper functional instruments, use approved sampling and analytical methods, verify the validity of sampling and analytical procedures, and perform correct calculations.

II.C. GENERAL INSPECTION REQUIREMENTS

Safety-Kleen shall follow the inspection schedules in Attachment $\underline{2}6$. Safety-Kleen shall remedy any deterioration or malfunction discovered by an inspection as required by COMAR 26.13.05.02 F (3). Records of inspections shall be kept as required by COMAR 26.13.05.02 F (4).

II.D. PERSONNEL TRAINING

Safety-Kleen shall conduct personnel training as required by COMAR 26.13.05.02 G. The training program shall follow the attached Training Outline, Permit Attachment 5. Safety-Kleen shall maintain documents and records as required by COMAR 26.13.05.02 G (4) and (5).

II.E. PREPAREDNESS AND PREVENTION

- II.E.1. <u>Required Equipment</u>. At a minimum, Safety-Kleen shall equip the facility with the equipment set forth in the Attachment 6, Procedures to Prevent Hazards, as required by COMAR 26.13.05.03.
- II.E.2. <u>Testing and Maintenance of Equipment.</u> Safety-Kleen shall test and maintain the equipment specified in the permit condition II.E.1 and in Attachment 6, as necessary, to assure its proper operation in time of emergency.
- II.E.3. <u>Access to Communications or Alarm Systems.</u> Safety-Kleen shall maintain access to the communications or alarm system as required by COMAR 26.13.05.03 E.
- II.E.4. <u>Arrangements with Local Authorities</u>. Safety-Kleen shall maintain arrangements with local authorities as required by COMAR 26.13.05.03 H. If local officials refuse to enter into or renew existing preparedness and prevention arrangements with Safety-Kleen, Safety-Kleen shall document this refusal in the operating record and immediately notify the WAS in writing of the refusal.

II.F. CONTINGENCY PLAN

- II.F.1. <u>Implementation of Plan</u>. Safety-Kleen shall immediately implement the provisions of the Contingency Plan, Attachment 4, and follow the emergency procedures described in COMAR 26.13.05.04 G whenever there is an imminent or actual fire, explosion, or release of hazardous waste or constituents, which threatens or could threaten human health or the environment.
- II.F.2. <u>Amendments to Plan</u>. Safety-Kleen shall review and immediately amend, if necessary, the Contingency Plan as required by COMAR 26.13.05.04 E.
- II.F.3. <u>Copies of Plan</u>. Safety-Kleen shall comply with the requirements of COMAR 26.13.05.04 D.
- II.F.4. <u>Emergency Coordinator</u>. Safety-Kleen shall comply with the requirements of COMAR 26.13.05.04 F.

II.G. RECORD KEEPING AND REPORTING

- II.G.1. Operating Record. Safety-Kleen shall maintain a written operating record at the Manassas facility located at 11520 Balls Ford Road, Manassas, Virginia 20109 150 Penrod Court, Glen Burnie, MD 21061 in accordance with COMAR 26.13.05.05 D.
- II.G.2. <u>Periodic Reporting.</u> Safety-Kleen shall comply with all applicable periodic reporting requirements of COMAR 26.13.05.05 F.

II.H. GENERAL POST-CLOSURE REQUIREMENTS

- II.H.1. Post-Closure Care and Use of Property; Period of Care. Safety-Kleen shall provide post-closure care of the site in compliance with the requirements of COMAR 26.13.05.07 G and with the Corrective Action Plan, Attachment 1 until site specific clean-up criteria have been achieved and the WAS grants approval for Safety-Kleen to discontinue post closure care of the site.
- II.H.2. <u>Amendment to Post-Closure Plan</u>. Safety-Kleen shall amend the Post-Closure Plan in accordance with COMAR 26.13.05.07 H(4) whenever necessary.
- II.H.3. <u>Maintenance and Monitoring</u>. Throughout the post-closure care period Safety-Kleen shall maintain and monitor the facility in accordance with COMAR 26.13.05.07 G and .14 J (2) b and c.

II.H.4. <u>Certification of Completion of Post-Closure Care Period</u>. Upon completion of the post-closure care, Safety-Kleen shall provide the post-closure certification required by COMAR 26.13.05.07 J.

II.I. COST ESTIMATE FOR FACILITY POST-CLOSURE CARE

- II.I.1. <u>Annual Adjustment</u>. Safety-Kleen shall adjust the Post-Closure Care Cost Estimate included in <u>Attachment 1as Table 6</u>, for inflation, within 60 days prior to each anniversary date of the establishment of the financial instrument used to comply with 40 CFR §264.144 (b) incorporated by reference in COMAR 26.13.05.08.
- II.I.2. <u>Adjustment of Changed Conditions</u>. Safety-Kleen shall revise the post-closure care cost estimate whenever there is a change in the facility post-closure plan as required by 40 CFR §264.144 (c) incorporated by reference in COMAR 26.13.05.08.
- II.I.3. <u>Availability</u>. Safety-Kleen shall keep the latest Post-Closure Care Cost Estimate at the site specified in Permit Condition I.F above, as required by 40 CFR §264.144 (d) incorporated by reference in COMAR 26.13.05.08.

II.J. INCAPACITY OF OWNER/OPERATOR, GUARANTORS OR FINANCIAL INSTITUTIONS

Safety-Kleen shall comply with 40 CFR § 264.148, incorporated by reference in COMAR 26.13.05.08, whenever necessary.

II.K. FINANCIAL ASSURANCE FOR POST-CLOSURE CARE

Safety-Kleen shall maintain compliance with 40 CFR §264.145, incorporated by reference in COMAR 26.13.05.08, by providing financial assurance by means other than the financial test or corporate guarantee, in at least the amount of the cost estimates required by Permit Condition II.I. Changes in financial assurance mechanisms must be approved by the WAS.

II.L. SECURITY

Safety-Kleen shall comply with all applicable requirements of COMAR 26.13.05.02 E.

II.M. MANIFEST SYSTEM

Safety-Kleen shall comply with the manifest requirements of COMAR 26.13.05.05 B, C and G, as applicable.

II.N. FLOODPLAIN STANDARD

Safety-Kleen shall comply with the requirements of COMAR 26.13.06.01 B, if applicable.

II.O. GROUND WATER PROTECTION

- II.O.1. <u>Required Program.</u> Safety-Kleen shall comply with the requirements of the monitoring and response program of COMAR 26.13.05.06 to 06-7, the conditions specified in this permit, and with the Sampling and Analysis Plan, Attachment 2.
- II.O.2. General Ground Water Monitoring Requirements. Safety-Kleen shall comply with the requirements contained in COMAR 26.13.05.06-2 for any ground water monitoring program developed to satisfy COMAR 26.13.05.06-6; as well as those requirements specified in this permit and in the Sampling and Analysis Plan, Attachment 2.

II.P. SURVEYED BENCH MARKS

Safety-Kleen shall protect and maintain all surveyed bench marks at the facility as required by COMAR 26.13.05.14 J(2)(e).

PART III

SPECIAL CONDITIONS FOR POST-CLOSURE CARE

III.A. GENERAL DESCRIPTION

Safety-Kleen Corporation operated a service center at 12164 Tech Road, Silver Spring, Maryland 20904 that provided off site commercial customers with reclaimed or virgin solvents. The service center operated from 1982 to 1996. Spent parts washer solvent was stored in a 12,000-gallon underground storage tank during the operation of the facility. The underground tank failed to pass a tightness test in October of 1989 because an underground filler line was leaking. The area is shown ion Attachment 7Figure 2. The underground tank was removed and the site was closed in 1996. Safety-Kleen subsequently conducted corrective action, consisting of Soil Vapor Extraction (SVE) and groundwater monitoring in accordance with the provisions of Permit A-302

from 1999 through 2005. The SVE attained technically feasible removal rates of subsurface contamination and the vapor recovery rates have been demonstrated by Safety-Kleen to be asymptotic. Safety-Kleen also conducted pilot testing of chemical oxidizing agents to further reduce levels of subsurface contamination. This part of the Permit sets forth special conditions under which Safety-Kleen shall conduct post-closure care activities to address site contamination.

- III.A.1. Safety-Kleen shall provide post-closure care for the property specified above in accordance with conditions of this permit.
- III.A.2. Safety-Kleen shall maintain eight existing monitoring wells (MW-1 through MW-8), shown on Figure 42. Safety-Kleen may not change configuration of the monitoring wells as established in the permit without written approval from the WAS.
- III.A.3. Safety-Kleen shall maintain wells, fences, and signs at the facility, described in Attachment 78, in proper state of repair and upkeep for their intended use.
- III.A.4. <u>If necessary</u>, Safety-Kleen shall design and build or install equipment for remediation of groundwater and cleaning the site in accordance with the terms of this permit. Such equipment will be considered part of this facility and may include, but is not limited to, extraction wells, additional monitoring wells and piezometers, water conveyance, treatment and disposal systems and auxiliary equipment.
- III.A.5. Safety-Kleen shall operate the existing Soil Vapor Extraction (SVE) system at or close to its maximum capacity with regard to extraction rate. Safety-Kleen shall monitor the operating time and extraction rate, and report the results to the WAS monthly, including an extraction-versus-time (calendar dates and hours) chart. Safety-Kleen shall obtain prior approval of the WAS before making any changes in the design or operation of the SVE systems.
- III.A.65. Safety-Kleen shall obtain all necessary permits and submit all the necessary data, reports, documents and certifications in accordance with the appropriate local, State and Federal laws and regulations.

III.A.76. Safety-Kleen shall monitor groundwater for the hazardous constituents shown in Permit Condition III.C. Types of wastes previously stored in the underground storage tank are shown in Attachment 3, Waste Characteristics.—The hazardous constituents shown in Permit Condition III.C.1 are derived from the composition of waste streams that were permitted to be stored in the underground storage tank. The hazardous constituents list has been further modified based on the results of the past 16 years of groundwater monitoring, and the demonstration by Safety-Kleen that many of the hazardous constituents have not been present in groundwater above an applicable permit concentration limit for a minimum consecutive three--year period.

III.B. WELL LOCATION, INSTALLATION AND CONSTRUCTION

Safety-Kleen shall maintain and utilize the existing groundwater monitoring system in accordance with the requirements specified below:

- III.B.1. Safety-Kleen shall maintain groundwater monitoring wells and piezometers, including the background wells listed in Permit Condition III.F.2, at the locations shown on Figure 42.
- III.B.2. Safety-Kleen shall maintain the monitoring wells identified in Permit Condition III.F.2 in accordance with the practices presented in Section 8 of the Handbook of Suggested Practices for the Design and Installation of Groundwater Monitoring Wells, EPA 600/4-89/034, 1989, included in Attachment 98.
- III.B.3. Safety-Kleen shall install additional monitoring wells, if necessary, to fully characterize groundwater quality and movement as they develop after implementation of the corrective action program described in Permit Condition III.D. Safety-Kleen shall construct the new wells in accordance with the State regulations, COMAR 26.04.04, using as guidance the EPA publication "RCRA Groundwater Monitoring Technical Enforcement Guidance Document", OSWER 9950.1, 1986, Chapter 3 (pages 71-95). Safety-Kleen shall submit proposed locations, designs and justifications for new monitoring wells to the WAS for approval before the wells are installed.
- III.B.4. Safety-Kleen shall plug and abandon all wells and piezometers to be deleted from the monitoring or extraction-system (e.g., due to irreparable structural malfunction or

inefficiency) in accordance with COMAR 26.04.04.11. Safety-Kleen shall submit well plugging and abandonment methods and certifications to the WAS within 30 days of the date the wells are removed from the monitoring or extraction system.

III.C. GROUNDWATER PROTECTION STANDARD

III.C.1. Safety-Kleen shall continue to implement a corrective action program to ensure that the groundwater within the area of the former Safety-Kleen facility comes into compliance with the groundwater protection standard set forth herein. The parameters, waste constituents and their concentration limits shown in Permit Conditions III.C.1a and b comprise the groundwater protection standard. The constituents include those originally present in the wastes stored in the tank or underground byproducts of the original constituents, as modified by the demonstration by Safety-Kleen that the constituents have not been present in groundwater for three or more consecutive years of monitoring. Safety-Kleen shall also measure the pH, temperature and specific conductance of each sample.

III.C.1.a. Safety-Kleen shall monitor the following parameters in the groundwater for the duration of the monitoring program. The concentration limits shown for these parameters except for total petroleum hydrocarbons (TPH) are the Maximum Contaminant Levels (MCL). The TPH concentration limit is the level specified by the WAS. Benzene, chlorobenzene, 1,2-dichlorobenzene, 1,4-dichlorobenzene, ethylbenzene, toluene, 1,1,1-trichloroethane, and xylenes (total) were eliminated from this revision of the permit based on to Safety-Kleen's demonstration of three consecutive years of compliance below the Cleanup Objectives.

Constituents	Concentration <u>Limits in ppb</u>
Total Petroleum Hydrocarbons (TPH)	100
Benzene	5
Chlorobenzene	100
1,2-Dichlorobenzene	600
1,4-Dichlorobenzene	75
Ethylbenzene	700

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Toluene	1000
1,1,1-Trichloroethane 200	
Xylenes (Total)	10,000

III.C.1.b._ Safety-Kleen shall monitor the following constituents in the groundwater as part of the monitoring program until three consecutive years of sampling and analysis data indicates that the concentration limit for a constituent has not exceeded the following concentration limits: Chloroform, 1,1-dichloroethene, and methyl ethyl ketone were removed from this revision of the permit based on Safety-Kleen's demonstration of due to three consecutive years of compliance below the Cleanup Objectives.

Constituents	Concentration Limits in
	<u>ppb</u>
Arsenic	50^{1}
Barium	$2,000^{1}$
Cadmium	5 ¹
Chloroform	
Chromium	100^{1}
Cresol (total, or sum of o, m, and p)	1 <u>.</u> 800 ^{2,3}
1,1-Dichloroethene	
2,4-Dinitrotoluene	73^{2}
Hexachlorobenzene	10^4
Hexachlorobutadiene	10^4
Lead	15 ⁵
Mercury	2^{1}
Methyl Ethyl Ketone	1900 ²
Nitrobenzene	10^4
Selenium	50 ¹
Silver	180^{2}

- ¹ Maximum Contaminant Level (MCL).
- Limits are Risk Based Concentrations (RBC) recommended by EPA
 Region III for tap water.
- RBCs for o-cresol and m-cresol are 1800 ppb. RBC for p-cresol is 180 ppb. However, m- and p-cresol can not be differentiated positively by the analytical laboratory method recommended by EPA.
- Limits are practical quantitation limits (PQL) for the analytical laboratory method recommended by EPA. MCLs or RBCs for these

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constituents are lower than PQLs.

The limit for lead is an action level defined and recommended by EPA.

- III.C.1.c. If the concentration limit for a constituent under permit condition III.C.1.b, above, has not been exceeded for three consecutive years, Safety-Kleen may stop monitoring for that constituent.
- III.C.2. Safety-Kleen shall monitor the following constituents in groundwater each time groundwater is sampled:

Tetrachloroethene (Perchloroethylene – PCE)

Trichloroethene

1,2-Dichloroethene (cis and trans)

Vinyl chloride

III.C.3. PCE Contamination.

- III.C.3.a. Safety-Kleen shall perform the actions specified in Permit Condition III.C.3.b for any well that:
 - i) has not historically had PCE concentration greater than 150 ppb,
 - ii) contains detectable levels of mineral spirits or indicator constituents listed in Permit Condition III.C.1.a, above, and
 - iii) has had four consecutive calendar quarters of increasing concentrations of one or more of the constituents listed in Permit Condition III.C.2 (PCE and PCE degradation products).
- III.C.3.b. For a well identified in Permit Condition III.C.3.a, Safety-Kleen shall submit, to the WAS for review and approval:
 - i) a work plan for an investigation to the source of the PCE (or PCE degradation products) detected in the well, and
 - ii) proposed corrective measures and clean up standards for PCE and its degradation products.

- III.C.3.c. Safety-Kleen shall submit the items required in Permit Condition III.C.3.b within 60 days after the date it is first determined that the conditions described under (i), (ii) and (iii) of Permit Condition III.C.3.a. have been met.
- III.C.4. The cleanup level of 100 ppb for Total Petroleum Hydrocarbons (TPH) in groundwater, shown in Permit Condition III.C.1, includes the total hydrocarbons in the diesel range, the gasoline range and the mineral spirits range.
- III.C.5. Safety-Kleen will not be responsible for attainment of the groundwater protection standard of Permit Condition III.C.1 for a given constituent if Safety-Kleen demonstrates, to the satisfaction of the WAS, that an elevated concentration of the constituent in groundwater is caused by a source other than the activities of the former Safety-Kleen facility.
- III.C.6. Safety-Kleen shall monitor Wells No. MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, and MW-8 on a schedule to be proposed by Safety-Kleen and approved by the MDE, as points of compliance, in accordance with the provisions proposed in Attachment 2., pages 25 through 30, as modified in accordance with Permit Condition III.C.7 below.
- III.C.7. Within 90 days of the effective date of this permit, Safety-Kleen shall submit to the WAS for review and approval a new groundwater monitoring plan (GMP), including a groundwater Sampling and Analysis Plan (SAP) that is consistent with the objectives and requirements of Permit Condition III.C.

III.D. CORRECTIVE ACTION PROGRAM

III.D.1.Within 60 days of the effective date of this permit, Safety-Kleen has submit detailed technical specifications and as built drawings of the existing SVE system, including any changes or modifications implemented after construction, to the WAS. Safety-Kleen shall include data showing the designed maximum hydrocarbon extraction capacity of the SVE system and the maximum hydrocarbon absorption capacity of the carbon filter system, both supported by necessary technical calculations. The documents shall also include driller logs and well construction data for SVE wells. These documents will be attached to this permit as Attachment 1, and made a part of this permit.

- III.D.2. Safety-Kleen shall utilize the existing soil vapor extraction system to remove residual contamination in soil.
- III.D.3. Concurrent with III.D.2. above, Safety Kleen shall maintain real-time data of operating hours of each SVE well, extracted air volumes, measured or estimated mass of hydrocarbons extracted from each well, total influent hydrocarbons to the carbon filter system and total effluent hydrocarbons from the carbon filter system. Specifically, Safety Kleen shall conduct the following at the specified time intervals:
- III.D.3.a. Monthly SVE system checks.
- III.D.3.b.Monthly measuring of flow rates at vapor extraction points, influent to blower, and effluent of blower.
- - III.D.3.d. Monthly gauging of monitoring wells.
 - HI.D.3.e. Quarterly sampling of groundwater.
- III.D.4.1 If the groundwater protection standards of Permit Condition III.C.1 have not been achieved,

 Safety-Kleen shall propose to the WAS an alternative corrective measure within 10 work days of
 the first occurrence of any of the following incidents:
 - III.D.4.a. The actual down time of the SVE system due to a high groundwater elevation exceeds five percent of the total run time in any one month,
 - III.D.4.ba. A Total Petroleum Hydrocarbons as Mineral Spirits of 5,000 micrograms per liter or higher is detected in any of the monitoring wells, or
 - III.d.4.eb. A free product phase layer of 0.1 inch-feet or more is detected in any of the monitoring or SVE system wells.
- III.D.5. Safety-Kleen shall obtain WAS's approval before making any changes in the SVE system. In seeking such approval, Safety-Kleen shall specify the reasons the change is being sought.
- III.D.6. Safety Kleen shall obtain the necessary construction and other appropriate local, State and Federal permits for installation of any extraction wells, that may be necessary.
- III.D.7. Safety-Kleen shall obtain all required air emissions permits.
- III.D.8. Safety-Kleen shall implement the corrective action program described above to lower hazardous

constituents to less than their respective concentration limits shown under Permit Condition III.C.1, at the compliance points specifically identified in the permit.

- III.D.9<u>12</u>. Safety-Kleen shall conduct the corrective action program to remove any hazardous constituents that exceed the concentration limits of Permit Condition III.C.1 in groundwater within the impacted area, in accordance with the corrective action plan, Attachment 1.
- III.D.3. Safety-Kleen shall evaluate the potential to close the site through the use of a risk assessment to demonstrate that existing groundwater concentrations are protective of human health and the environment. The risk assessment will be completed in general accordance with the U.S.E.P.A.

 Region III policy, and may be submitted in conjunction with the risk assessments that have been conducted or may be conducted in the future for surrounding and/or adjacent properties.
- III.D.+10.4. Once groundwater protection standards of Permit Condition III.C.1 have been achieved, Safety-Kleen may suspend corrective action measures while Safety-Kleen continues groundwater monitoring in accordance with the provisions of this permit, including the statistical analysis required by Permit Condition III.G. Unless already suspended in accordance with Permit Condition III.C.1.c, Safety-Kleen shall continue this monitoring at least until Safety-Kleen can demonstrate, based on data from the groundwater monitoring program required by Permit Condition III.H, that the groundwater protection standards of Permit Condition III.C.1 have not been exceeded for a period of three consecutive years. If the standards are exceeded during the three year period, Safety-Kleen shall restart the corrective measures, or propose new measures for WAS's approval, to meet the standards. A new confirmation period of three years will be required once the standards are achieved again.

III.E. SAMPLING AND ANALYSIS PROCEDURES

Safety-Kleen shall use the following techniques and procedures when obtaining and analyzing samples from groundwater monitoring wells described in Permit Condition III.C.5.

- III.E.1. At a minimum, Safety-Kleen shall follow procedures described in Attachment 2 for obtaining, preserving, shipping, analyzing and tracking samples from groundwater monitoring wells, and for quality assurance and control of results.
- III.E.2. Safety-Kleen shall review the Standard Operating Procedures and Quality Assurance/
 Quality Control Methods of the laboratory that will be used for sampling and analysis
 work required by this permit, and shall certify to the WAS compliance with the permit
 requirements. The laboratory must use the methods and procedures documented in the

latest edition of the EPA Publication SW 846, or equivalent approved methods.

- III.E.3. Safety-Kleen shall make sure that all groundwater extracted for purging the wells or well development, and all discarded samples, are contained, characterized as to whether they are regulated as hazardous waste, and disposed of properly.
- III.E.4. Safety-Kleen shall employ procedures for sample collection, preservation, shipment and analysis, and for tracking and control of samples and data, that provide reliable indication of the quality of groundwater within the subject area of this permit, and assure that such procedures are compatible with the statistical analysis method required in Permit Condition III.G.

III.F. GROUNDWATER ELEVATION

- III.F.1. Safety-Kleen shall determine the groundwater surface elevation at each well each time groundwater is sampled, in accordance with Attachment 2, Sampling and Analysis Plan.
- III.F.2. Safety-Kleen shall measure groundwater elevations during every sampling round in Wells No. MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7 and MW-8, shown in Figure 1_2. Safety Kleen shall also measure, record and report water and free product levels, if any in all SVE system wells, including VEP-1 through VEP-10. SVE wells groundwater elevations, however, shall not be included in groundwater gradient and flow analysis.
- III.F.3. Safety-Kleen shall install additional monitoring wells or piezometers if necessary to allow a clear understanding of groundwater gradients as they evolve as a result of the corrective action measures. Safety-Kleen shall report to the WAS all well construction data shown below for each new monitoring well.
- III.F.3.a. the date well was completed,
- III.F.3.b. well depth,
- III.F.3.c. measuring point location and elevation,
- III.F.3.d. drilling method,
- III.F.3.e. casing type (material, schedule, type of joint),
- III.F.3.f. well screen specifications (material, size, type and size of slots, top and bottom elevations),
- III.F.3.g. specifications of filter pack (source, gradation, method of installation, top and bottom elevations),
- III.F.3.h. grout specifications (material, method of installation, top and bottom elevations),
- III.F.3.i. well development date, method and duration, and
- III.F.3.j. information on any pump tests, yield tests and slug tests conducted on the well including date of the test, static water elevation, pumping water elevation after pumping at a given rate for a given length of time, well specific capacity (discharge rate per length of draw down), hydraulic conductivity and the time it was measured.

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Safety-Kleen shall also provide the driller's log for each well.

III.G. STATISTICAL PROCEDURES

No later than three months prior to the date that Safety-Kleen intends to demonstrate that the clean up standards for any or all of the parameters in Permit Condition III.C.1 have been achieved, Safety-Kleen, if necessary, shall propose, and justify, to the WAS a statistical method for evaluating the monitoring results to demonstrate the effectiveness of corrective action measures conducted in accordance with Permit Condition III.D. Safety-Kleen shall select one of the statistical methods shown under COMAR 26.13.05.06-3 B. Safety-Kleen shall use a procedure that:

III.G.1. is appropriate for the distribution of chemical parameters or hazardous constituents; and III.G.2. complies with other performance standards of COMAR 26.13.05.06-3 C.

Upon approval by the WAS, the selected statistical method will be included in Attachment 2 of this permit.

III.H. MONITORING PROGRAM, AND DATA EVALUATION AND INSPECTIONS

- III.H.1. Safety-Kleen shall establish and implement a groundwater monitoring program to demonstrate the effectiveness of the corrective action program.
- III.H.2. Safety-Kleen shall conduct groundwater monitoring that shall be as effective as the program for compliance monitoring under COMAR 26.13.05.06-2 and 06-5.
- III.H.3. Safety-Kleen shall determine groundwater quality as follows:
 - III.H.3.a. Safety-Kleen shall collect, preserve and analyze samples in accordance with Permit Condition III.E.
 - III.H.3.b. Unless monitoring is suspended in accordance with Permit Condition III.C.1.c, Safety-Kleen shall determine the concentration of the hazardous constituents and parameter levels specified in Permit Condition III.C.1 throughout the post-closure care period, to demonstrate conformance with the groundwater protection standard. Safety-Kleen shall determine the concentration of hazardous constituents and parameter levels in groundwater at each monitoring well at the compliance points quarterly in accordance with a schedule proposed by Safety-Kleen and approved by WAS.
- III.H.4. Safety-Kleen shall determine, and report to the WAS, the ground water flow rate and

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direction in the uppermost aquifer <u>in accordance with a schedule proposed by Safety-Kleen and approved by WAS.</u> Safety-Kleen shall submit to the WAS maps of ground water contours and flow directions with the reporting schedule. <u>quarterly_reports.</u>

III.H.5. As required by COMAR 26.13.05.02 F (General Inspection Requirements), Safety-Kleen shall inspect the facility for any deterioration, operator errors, and discharges which may be causing, or may lead to, a release of hazardous wastes into the environment or a threat to human health. Safety-Kleen shall conduct these inspections often enough to identify problems in time to correct them before they harm human health or the environment. Safety-Kleen shall follow the procedures described in the inspection schedules, included in Attachment 6, Procedures to Prevent Hazards, to satisfy the general inspection requirements of this section.

III.I. RECORD KEEPING AND REPORTING

- III.I.1. Safety-Kleen shall enter all monitoring, testing and analytical data obtained, according to Permit Condition III.H, in the operating record.
- III.I.2. Safety-Kleen shall report, in writing, to the WAS on the effectiveness of the corrective action program. The frequency of this reporting shall be on a schedule proposed by Safety-Kleen and approved by WAS, but no less than on a quarterly semiannual basis. The reports shall be submitted by March 31, June July 31 and January 31 for the preceding six-month period. 30, September 30 and December 31.
- III.I.3. Safety-Kleen shall submit the data required by Permit Conditions III.F, III.H.2, III.H.3 and III.H.4, in accordance with the following schedule:

Samp	oles Collected	Results Due to	
During:		the WAS by:	
	January <u>-JuneApril</u>	March 31J	<u>ılyne 310</u>
	April	June 30	
	July-OctoberDecember-	Se	ptember
30DecemberJanuary	<u>31</u>		
	October	December 31	

III.I.4. Safety-Kleen shall record the results of the inspections required by Permit Condition III.H.5 in an inspection log or summary, and shall maintain these records for a minimum period of three (3) years. These records shall include date and time of inspection, inspector's name, observations made, and date and nature of any repairs or other remedial actions.

III.J. REQUEST FOR PERMIT MODIFICATION

If Safety-Kleen or the WAS determines that the corrective action program established by this Permit no longer satisfies the regulatory requirements of COMAR 26.13.05.06-6, then Safety-Kleen shall submit a proposal for amending the corrective action program. n application for a permit modification within 90 days of such determination to make any appropriate changes to the program. Amendments to the monitoring frequency and the corrective action program may be approved through written concurrence from the agency, without the requirement for a permit modification.

III.K. COMPLIANCE SCHEDULE

Within 60 days of the effective date of this permit Safety-Kleen shall make revisions to the information included in the application and submit the information and documents to the WAS as specified below:

- III.K.1. Include all target analytes shown in permit condition III.C.1 in the groundwater monitoring program.
- III.K.2. Submit the documents required under Permit Condition III. D.1.
- III.K.3. Confirm that the cleanup level of 100 ppm for Total Petroleum Hydrocarbons (TPH) in soils, mentioned on Page 28 of the Application which is included in Permit Attachment 2, includes the total hydrocarbons in the diesel range, the gasoline range and the mineral spirits range.
- III.K.4. Develop and submit the following documents specifically adapted to the remediation system referenced in Permit Condition III.D.2:
 - III.K.4.a. Detailed Procedures to Prevent Hazards meeting the requirements of COMAR 26.13.05.03.
 - III.K.4.b. A comprehensive Contingency Plan meeting the requirements of COMAR 26.13.05.04.
 - HI.K.4.c. A Training Plan meeting the requirements of COMAR 26.13.05.02G.
- III.K.<u>1</u>5. Update and re-submit the irrevocable standby letter of credit 212.04393 in support of the post-closure care cost guarantee.

ATTACHMENTS

Permit attachments 1 through 8 consist of portions of the permit application, and its subsequent amendments submitted by Safety-Kleen as indicated below. Attachment 9 contains a guidance document for maintenance of monitoring wells. The attachments are an enforceable part of this permit. However, if there are any discrepancies between the permit conditions and contents of the attachments, the permit conditions shall prevail.

<u>Per</u>	mit Attachment No. and Title	No. of Pages	Application Section (Attachments 1 through 8)
1.	Corrective Action Plan.	TBD ¹ 5 ¹	Permit Renewal Application, (This Permit Attachment will consist of the documents that Safety-Kleen shall submit in compliance with Permit Condition III.D.1.) Attachment 1.
2.	Sampling and Analysis Plan.	TBD815	Permit Renewal Application, Attachment 2. Part B Application ² : Section 8 including Table 9A, pp.21-31; Figures 15 and 20 (2 pages); Appendix J (2 pages).
3.	Waste Characteristics.	TBD 056	Permit Renewal Application, Attachment 3. Part B Application: Sections 3 and 5, pp. 7-11, and p.15; Tables 3-8 (8 pages); Appendices A and B (42 pages).
4.	Contingency Plan.	TBD1112	Permit Renewal Application, Attachment 4. Part B Application: Section 11, pp.36-45; Tables 10 and 11 (2 pages).
5. B-/	Training Outline Application: Section 12, pp. 46-50.	<u>TBD5</u> 5	Permit Renewal Application, Attachment 5.Part
6.	Procedures to Prevent Hazards <u>6.Part B Application: Section 10, pp. 3</u>	<u>TBD2</u> 3	Permit Renewal Application, Attachment
7.	General Facility Description.	<u>TBD6</u> 19	Part Permit Renewal Application, Attachment 7.

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			B Application: Section 1,pp. 1-6; Tables 1 and 2 (2 pages); Figures 1-11 (11 pages).
8.	Part A (Application).	TBD9	Part A Application
9 <u>8</u> .	Maintenance of Monitoring Wells	16	Section 8 of the Handbook of Suggested Practices for the Design and Installation of Groundwater Monitoring Wells, EPA 600/4- 89/034, 1989, pp. 246 — 261
<u>9.</u>	Post Closure Plan	4	Permit Renewal Application, Attachment 9

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- The number of pages in Attachment 1 will be determined after submission of the required documents by Safety-Kleen.
- Wherever in Permit Attachments a contractor's name, such as Fluor Daniel GTITrihydro Corporation, etc., is referenced, Safety-Kleen, or whomever its designated contractor is at a specific time, is intended.

ABBREVIATIONS USED IN PERMIT ATTACHMENTS

ASP Air Sparge Point

BTEX Benzene, Toluene, Ethylbenzene, xylenes

DOT US Department of Transportation

DPHVE Dual-Phase, High Vacuum Extraction

GAC Granulated Activated Carbon

GWCC Groundwater Contaminant Constituents

HASP Health and Safety Plan

HWMU Hazardous Waste Management Unit

JSA Job Safety Analysis

LCS Laboratory Control Sample (or Standard)

MDL Method Detection Limit

MSDS Material Safety Data Sheet

PCE Perchloroethylene (Tetrachloroethylene)

PID Photo-ionization Detector

POC Point of Compliance

QA/QC Quality Assurance / Quality Control

SPH Separate-phase Petroleum Hydrocarbon

SVE Soil vapor extractionTAL Target Analyte ListTCE Trichloroethylene

TCLP Toxicity Characteristic Leaching Procedure

TEG Technical Enforcement Guide
TPH Total Petroleum Hydrocarbons

VEP Vapor Extraction Point
VMP Vapor Monitoring Probe

VOC Volatile Organic Compounds

Richard W. Collins Horacio Tablada, Director

Date Signed

Waste Management Administration